'What is claimed is:

1. A method for initiating detonation in a combustible material comprising the step of injecting a jet material into a chamber filled with the combustible material from different directions to generate imploding shocks that increase temperature and pressure in jet impinging region to the point of initiating detonation in the combustible.

2. The method of claim 1 including the step of starting injection of the jet material when the detonation initiation process begins and stopping the injection of the jet material after the detonation is initiated.

3. The method of claim 1 wherein the step of injecting the combustible material into the chamber from different directions is discontinuous in the sense of injecting through holes in the chamber.

4. The method of claim 1 wherein the step of injecting the gaseous substance into the chamber from different directions is continuous in the sense of injecting through at least one annular slot around the chamber.

5. The method of claim 1 wherein the jet material is gaseous.

6. The jet material of claim 5 wherein the gaseous jet material is air.

7. The method of claim 5 wherein said step of injecting air includes the step of injecting air through an opening.

8. The method of claim 4 wherein said step of injecting the jet material includes the step of injecting a fuel through an opening in the chamber and injecting an oxidant through jet openings disposed on the sides of the fuel opening.

9. The method of claim 5 wherein typical pressure and temperature in the jet impinging region necessary for detonation initiation is from 20 bars to 1000 bars and from 1,500 K to 5,000 K, respectively.

10. The method of claim 8 wherein the fuel is ethylene and the oxidant is oxygen.

11. The method of claim 6 wherein pressure and temperature in the jet impinging region necessary for detonation initiation is from 20 bars to 1000 bars and from 1,500 K to 5,000 K, respectively.

12. An apparatus comprising a chamber that can be can be filled with a combustible material; a filling port for admitting the combustible material into the chamber; at least one opening in the chamber for admitting jet material into the chamber from different directions to generate imploding shocks for detonation initiation; and an exit opening in the chamber for allowing combustion products from detonation initiation method to exit the chamber.

13. The apparatus of claim 12 wherein said chamber is tubular.

14. The apparatus of claim 13 wherein said chamber is metallic.

15. The apparatus of claim 12 wherein said chamber has a closed end at one end and is open at the other end through which combustion products exit.

16. The apparatus of claim 13 wherein said at least one opening is a single circumferential slot around the chamber disposed at any location along the chamber.

17. The apparatus of claim 13 wherein the said at least one opening is a series of three closely spaced circumferential slots disposed at any location along the chamber.

18. The apparatus of claim 13 wherein chamber ID is 2-100 cm.

19. The apparatus of claim 13 wherein said at least one jet opening is disposed a distance from an end of said chamber that renders reflected shock waves ineffective in the initiation of detonation of the combustible material.

20. The apparatus of claim 13 including a holding tank for the combustible material, a conduit extending from said combustible-material holding tank to said chamber, a control valve for controlling flow rate through said conduit, and an electric control unit for controlling said control valve .

21. The apparatus of claim 20 wherein said chamber can withstand a temperature of up to about 5,000 K and a pressure of about 1000 bars.

22. The apparatus of claim 21 wherein said chamber is metallic up to about 2 cm. in thickness.